(WO/1997/014075) LIGHT-TRANSMITTING MATERIAL, PLANAR LIGHT SOURCE DEVICE AND LIQUID CRYSTAL DISPLAY DEVICE

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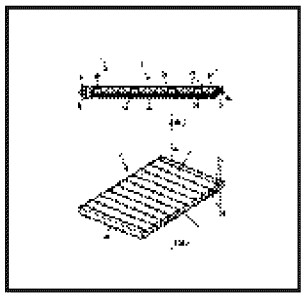
Title: LIGHT-TRANSMITTING MATERIAL, PLANAR LIGHT SOURCE DEVICE AND LIQUID CRYSTAL DISPLAY DEVICE

Abstract: A light-transmitting material having extremely high light utilization efficiency and having diversified forms having a uniform in-plane luminance distribution, and an in-plane light source device for a liquid crystal display device using the light-transmitting material. This material has a first plane as an incidence surface of natural polarized light as incident light and a second plane different from the first plane, as an outgoing surface of specific polarized light generated by modulating natural polarized light, wherein interfaces of two kinds of materials having different refractive indices are arranged at angles ($g(u)¿B?) ±$g(a)° satisfying a polarizing angle condition with respect to a main travelling direction of incident light, at least two directions of the interface exist in one light conductor and the difference of the two kinds of materials having different refractive indices is 0.001 to 1.0. Generally, $g(u)¿B? is about 45°. The light-transmitting material further includes a first transparent member having a first refractive index and equipped with a plurality of rectangular equilateral triangle ridges on the first surface thereof and a second transparent member having a second refractive index and equipped with a plurality of downwardly rectangular equilateral triangle grooves in the second surface thereof, and the first and second surfaces come into contact with each other.



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